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CLAIMS

1. A photoelectric conversion device,
comprising:

a plurality of pixels each having, as one unit,
5 photoelectric conversion means for converting light
into an electrical signal to accumulate therein
electric charges, and transfer means for transferring
the electric charges accumulated in the photoelectric
conversion means, the plurality of pixels being
10 disposed in matrix; and

means for sweeping out the electric charges
accumulated in the photoelectric conversion means
through a control line for the transfer means of the
pixels disposed along a line adjacent to the
15 photoelectric conversion means concerned.

2. A photoelectric conversion device according
to claim 1, wherein the sweeping means sweeps out the
electric charges accumulated in the photoelectric
20 conversion means using a capacity formed between the
photoelectric conversion means and the control line
for the transfer means of the pixels disposed along a
line adjacent to the photoelectric conversion means
concerned, and a voltage change of the control line
25 in a reading operation for the pixels disposed along
the adjacent line.

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3. A photoelectric conversion device according to claim 1, wherein the photoelectric conversion means includes a MIS type photosensor having a metal layer, an insulating layer, and a semiconductor layer.

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4. A photoelectric conversion device according to claim 1, wherein the transfer means includes a thin film transistor.

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5. A photoelectric conversion device according to claim 1, wherein the photoelectric conversion means includes a wavelength conversion unit and serves to convert light having a wavelength obtained through wavelength conversion by the wavelength

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conversion unit into an electrical signal to accumulate the electric charges.

6. A photoelectric conversion device according to claim 5, wherein the wavelength conversion unit includes a phosphor for converting ionizing radiation into visible rays.

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7. A photoelectric conversion device according to claim 1, further comprising:

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bias means for supplying a voltage required when the light is converted into the electrical signal to the photoelectric conversion means;

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control signal supply means for supplying a control signal used to control an operation for transferring the electrical signal obtained through the conversion by the photoelectric conversion means
5 to the control line; and

signal amplification means for amplifying the electrical signal transferred from the photoelectric conversion means in accordance with the control signal supplied from the control signal supply means
10 to the control line.

8. A photoelectric conversion device according to claim 7, wherein the bias means supplies a voltage to the photoelectric conversion means, a value of the
15 voltage when the electric charges are accumulated in the photoelectric conversion means being different from a value of the voltage when the electric charges accumulated in the photoelectric conversion means are swept out.

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9. A photoelectric conversion device according to claim 1, wherein an electrical signal amplifier and a vertical scanning circuit suitable for photographing of a moving image are connected to the
25 plurality of pixels disposed in matrix, and the electrical signal amplifier and the vertical scanning circuit are driven by utilizing a method suitable for

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the photographing of the moving image.

10. A photoelectric conversion device according to claim 1, further comprising dynamic range ensuring
5 means for allowing the photoelectric conversion means to ensure a dynamic range required for photographing of a still image.

11. A radiation moving image photography
10 apparatus, comprising a photoelectric conversion device as claimed in any one of claims 1 to 10, wherein a moving image is photographed using the photoelectric conversion device.

15 12. A method of controlling a photoelectric conversion device including a plurality of pixels each having, as one unit, photoelectric conversion means for converting light into an electrical signal to accumulate therein electric charges, and transfer
20 means for transferring the electric charges accumulated in the photoelectric conversion means, the plurality of pixels being disposed in matrix, the method comprising:

executing a sweeping processing for sweeping
25 out the electric charges accumulated in the photoelectric conversion means using a control line for the transfer means of the pixels disposed along a

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line adjacent to the photoelectric conversion means concerned.

13. A method of controlling a photoelectric
5 conversion device according to claim 12, wherein in
the sweeping processing, the electric charges
accumulated in the photoelectric conversion means are
swept out using a capacity formed between the
photoelectric conversion means and the control line
10 for the transfer means of the pixels disposed along a
line adjacent to the photoelectric conversion means
concerned, and a voltage change of the control line
in a reading operation for the pixels disposed along
the adjacent line.

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14. A computer program for making a computer
control a photoelectric conversion device including a
plurality of pixels each having, as one unit,
photoelectric conversion means for converting light
20 into an electrical signal to accumulate therein
electric charges, and transfer means for transferring
the electric charges accumulated in the photoelectric
conversion means, the plurality of pixels being
disposed in matrix,

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wherein the computer is made to execute a
sweeping processing for sweeping out the electric
charges accumulated in the photoelectric conversion

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means using a control line for the transfer means of the pixels disposed along a line adjacent to the photoelectric conversion means concerned.

- 5 15. A computer readable recording medium recording therein a computer program as claimed in claim 14.